## ABSTRACT OF THE INVENTION

A method of determining a surface property of a plurality of solids by contacting the solids with a fluid, measuring the radiation emitted, absorbed, or altered during desorption of the fluid using a detector, and then determining at least one surface property of the solids from the radiation measurements has been invented. The invention is particularly useful in combinatorial applications in order to evaluate a plurality of solids or mixtures of solids to determine at least one surface property of each of the solids.